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ABSTRACT

In 1985-86, after five years of implementation, the New York City (New York) Public Schools transferred responsibility for the Promotional Policy Program to the community school district. This report provides information about the success of the remedial reading program under this new organization in terms of student outcomes. Promotional "gates" in grades 4 and 7 were devised in 1980, with a students' promotion dependent upon meeting the criterion for that grade on the city-wide reading test. Students who failed to meet the criterion set on the California Achievement Test in reading or (for eligible limited English proficient students) on the Language Assessment Battery were eligible for the program. A total of 13,734 fourth- and seventh-grade students was eligible. Of the 12,248 students with both pre- and post-test scores, 81.5% met the criterion for their grade in August of 1985, January of 1986, or April of 1986. However, average gains were less than those made by students who participated in previous years. Patterns of achievement by promotional category were different from those of prior years. Achievement of students in an extension program continues to be problematic; gains of eighth-grade extension students, particularly, do not match those of other program students. It is recommended that the central and district program administrators review the programs for adequacy of teacher preparation and curriculum materials. Thirteen data tables are included. (TJH)

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STUDENT ACHIEVEMENT IN
THE 1985-86
PROMOTIONAL POLICY PROGRAM

OEA Evaluation Report

New York City
Board of Education

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July, 1987

A SUMMARY OF THE EVALUATION OF THE STUDENT ACHIEVEMENT IN THE 1985-86 PROMOTIONAL POLICY PROGRAM*

The Promotional Policy

The promotional policy of the New York City Board of Education was established to set and maintain city-wide curriculum and performance standards, to identify students unable to meet these standards, and to provide remedial instruction for the identified students. Introduced in June, 1980, the policy defined promotional "gates" in grades four and seven, with a student's promotion being dependent upon meeting the criterion for that grade on the city-wide reading test. By instituting uniform, objective promotional standards, the program established specific expectations for students and goals for staff.

Equitable and formalized procedures for granting exceptions were established in the second year of the program. These reduced the program's reliance on a single test score for determining eligibilty. The program also provides multiple opportunities for students to demonstrate criterion attainment through special testing in August and January as well as regular test administration in April.

In 1985-86, after five years of implementation, central administrators gave responsibility for ongoing staff development and supervision of this program to the community school districts. This report provides information about the success of the program under this new organization in 1985-86 in terms of student outcomes.

Gates-Eligible Students

A total of 13,734 students who were in fourth and seventh grade for the first time in 1984-85 failed to meet the criterion set on the California Achievement Test (CAT) in reading or (if an eligible limited-English-proficient student) on the Language Assessment Battery (LAB). These students were eligible for placement in Gates classes in 1985-86. An additional 620 students who had been in fourth-grade Gates classes and 864 students

*This summary is based on "Student Achievement in the 1985-86 Promotional Policy Program" (July, 1987) prepared by the O.E.A. Student Progress Evaluation Unit.

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who had been in seventh-grade Gates classes in 1984-85 had April, 1985 test scores below criterion. These students were promoted but were eligible for Extension classes.

Achievement of Gates Students

Of the 12,248 Gates students with both pretest and posttest scores, 81.5 percent met the criterion for their grade in August, 1985; January, 1986; or April, 1986. However, both the average fourth- and average seventh-grade gains were less than those made by Gates students in previous years. Approximately 85 percent of the Gates population also had scores on the Degrees of Reading Power (D.R.P.) Test in April, 1985. Comparison of the April, 1985 and April, 1986 D.R.P. scores indicated educationally significant gains.

Over the five years of the program, 78.8 percent of the fourth-grade and 72.9 percent of the seventh-grade Gates students attained their reading criterion. The average full-year gain over the five years had been consistent in the fourth and seventh grades until 1985-86 when the gains were lower.

Patterns of achievement of Gates students by promotional category were different from those of prior years. In prior years, students promoted in April had lower gains than those promoted in August or January. Students promoted in April, 1986, however, made Normal Curve Equivalent score gains equivalent to students promoted in August and January. Those students who did not meet criterion and became Extension-eligible students made negligible gains. Additional analyses of full-year gains based solely on the D.R.P. scores indicated similar patterns of achievement.

Patterns of achievement by subgroups of the Gates population are similar to those of previous years in that the average achievement of Resource Room students in 1985-86 was slightly less than that of the full Gates population in both fourth and seventh grade. As in prior years, LEP students' gains were less than those of the entire group in both grades.

Achievement of Extension Students

Achievement of Extension students continues to be problematic. The gains of eighth-grade Extension students, particularly, do not match those of Gates students overall. However, analyses using April, 1985 and April, 1986 D.R.P. scores indicated educationally significant gains for both the fifth- and eighth-grade Extension students.

Conclusions and Recommendations

Evaluation of the Promotional Policy Program over the past five years suggests that the program continues to have a consistently positive effect on academic achievement. In 1985-86, however, the percent of fourth- and seventh-grade students attaining their criterion increased while the gains decreased. The criterion attainment results may be an artifact of new testing procedures; specifically, the use of two tests (the D.R.P. and the MAT) to determine criterion attainment. The decrease in gains, therefore, is problematic. Based on these findings, O.E.A. recommends that central and district program administrators review the program for changes that may have affected program outcomes.

Evaluation Section Report
Robert Tobias, Administrator
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July, 1987

STUDENT ACHIEVEMENT IN THE 1985-86 PROMOTIONAL POLICY PROGRAM

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A SUMMARY OF THE REPORT

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I. INTRODUCTION

BACKGROUND

In June, 1980, the promotional policy of the New York City Board of Education was established to set and maintain city-wide curriculum and performance standards, identify students unable to meet these standards, and provide remedial instruction for the identified students. The policy continues to maintain promotional "gates" in grades four and seven, with a student's promotion dependent upon meeting the criterion set for that grade on the city-wide reading test. By instituting uniform, objective promotional standards, the program establishes specific expectations for students and goals for staff.

Procedures for granting exceptions, established in the second year of the program, continue to reduce the program's reliance on a single test score for determining eligibility. (See Final Evaluation of the 1981-82 Promotional Gates Program and A Final Evaluation of the 1982-83 Promotional Policy Program.) The program also provides multiple opportunities for students to demonstrate criterion attainment through special test administrations in August and January as well as the regular test administration in April.

In 1985-86, after five years of implementation, central administrators gave responsibility for ongoing staff development and supervision of the program to the community school districts. This report provides information about the success of the program in terms of student outcomes.

DESCRIPTION OF THE DATABASE

As in previous years, the analysis of test results in the fifth year of the program utilized information supplied by Student Information Systems (SIS). This database consists of test records of all students who were in fourth or seventh grade in April, 1985.

A total of 13,734 students (see Appendix A, Table A-1) were identified who were in either the fourth or seventh grade for the first time and whose April, August, or September, 1985 reading score was below criterion for their grade on the California Achievement Test (CAT). Limited English Proficient (LEP) students who had been in an English language school system for at least two but less than four years were identified from data entered on the Language Assessment Battery (LAB) test answer document. These LEP students were subject to the LAB promotional criteria;* all other non-exempt students were subject to the reading criteria on the CAT.

In addition, 620 students who had been in the 1984-85 fourth-grade Gates program and 864 students who had been in the 1984-85 seventh-grade Gates program had April, 1985 test scores that were still below criterion. These students were eligible for the 1985-86 fifth-grade and eighth-grade Extension programs, respectively.

This report evaluates the progress in 1985-86 of these Gates- and Extension-eligible students through analyses of standardized reading achievement test scores.

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*The criterion for fourth grade was a total test raw score of 47 or above. For seventh grade, the criterion was a reading subtest raw score of 24 or above.

City-Wide Achievement Tests

For April, 1985 through January, 1986, as in previous years, the city-wide reading achievement test was the CAT. The fourth grade criterion on the CAT was the 27th percentile (3.7 grade equivalent) for the spring, summer, and fall testing. For the January testing the criterion was the 46th percentile (4.2 grade equivalent). In the seventh grade, the criterion was the 30th percentile (6.2 grade equivalent) for the spring, summer, and fall testings and the 43rd percentile (7.2 grade equivalent) for the January testing.

In April, 1986 two tests were used: the primary test was the Degrees of Reading Power (D.R.P.) and the secondary test was the Metropolitan Achievement Test (MAT). The criterion set for promotion on the D.R.P. was the 32nd percentile (based on national norms) for both the fourth and seventh grades. The criterion set for promotion on the MAT was the 16th percentile for fourth grade and the 15th percentile for seventh grade. The apparent differences in these criteria are the result of inherent psychometric differences between the D.R.P. and MAT.

DATA ANALYSIS

The CAT and D.R.P. results could not be directly compared (i.e., scores on one test could not be transformed into scores on the other test). Therefore, in order to assess changes in the performance of the Gates and Extension students, scores on both tests were converted to their Normal Curve Equivalents (N.C.E.s). The N.C.E.s were then used to assess changes in performance. This procedure produced results that are different from, but not inconsistent with, results obtained in

previous years. These differences will be discussed as they arise in later sections of this report.

The primary function of the D.R.P. is to identify the level of reading materials students can handle independently and during instruction. The D.R.P. mid-instructional score, used in some of the following analyses, provides an estimate of the level of materials a student will be able to understand well enough to learn from during classroom instruction.

OVERVIEW OF THE REPORT

Chapter II of this report presents results by Gates students of promotional criteria by Gates students in grades four and seven. The results of analyses on gains in reading achievement are also presented. O.E.A. also analyzed the reading achievement of various subgroups of the Gates population, specifically resource room and LEP-eligible students.

Chapter III of this report presents the conclusions and recommendations made by O.E.A. after analyzing and reviewing the results.

II. STUDENT ACHIEVEMENT

ATTAINMENT OF PROMOTIONAL CRITERIA BY GATES STUDENTS

Description of the Gates Population

According to the records of the Office of Promotional Policy (O.P.P.), 7.5 percent of the total fourth grade and 8.6 percent of the total seventh grade were Gates-eligible in 1985-86. These 1985-86 percentages are up slightly from those of 1984-85, but they are below the percentages observed in 1981-82, 1982-83, and 1983-84. Among the 1985-86 students originally held over, slightly more than 10 percent of the fourth and seventh graders were granted exceptions; the percent of exceptions granted has been steadily increasing each year of the program. (See Table A-1 in Appendix A.) O.P.P. records indicate that, overall, only 61 percent of eligible students were placed in promotional policy classes in 1985-86; this is a substantial decline in placememt from prior years.

1985-86 Criterion Attainment

Of the 13,734 Gates students, 12,248 had both pretest scores on the CAT and posttest scores on the D.R.P. Of these students, 9,979 (81.5 percent) met the promotional criterion for their grade on one of the three dates when the reading tests were administered: August, 1985; January, 1986; or April, 1986. Unlike previous years, a greater proportion of the seventh than fourth graders (83.6 and 79.0 percent, respectively) met the criterion for their grade. A total of 2,269 students (18.5 percent) in the combined grades were unable to attain criterion. (See Table 1.) These students became eligible for the 1986-87 Extension program.

TABLE 1

Comparison of Reading Criterion Attainment of
1981-82, 1982-83, 1983-84, 1984-85, and 1985-86 Gates Students[a]

	1981-82		1982-83		1983-84		1984-85		1985-86	
	N	%	N	%	N	%	N	%	N	%
Grade Four										
Students with pretest and posttest scores	8,434		6,808		5,127		6,339		5,627	
Students meeting criterion										
August	2,124	25.2	1,920	28.2	1,537	30.0	1,505	23.7	1,588	28.2
January	488	5.8	376	5.5	300	5.9	330	5.2	277	4.9
April	3,884	46.0	3,140	46.1	2,227	43.4	3,208	50.6	2,578	45.8
Total meeting criterion	6,496	77.0	5,436	79.8	4,064	79.3	5,043	79.5	4,443	79.0
Extension eligibles	1,938	23.0	1,372	20.2	1,063	20.7	1,296	20.5	1,184	21.0
Grade Seven										
Students with pretest and posttest scores	10,219		9,402		7,799		8,379		6,621	
Students meeting criterion										
August	2,548	24.9	3,357	35.7	2,208	28.3	2,832	33.8	2,088	31.5
January	1,284	12.6	970	10.3	1,076	13.8	811	9.7	842	12.7
April	2,642	25.9	2,755	29.3	2,100	26.9	2,811	33.5	3,606	39.4
Total meeting criterion	6,474	63.4	7,082	75.3	5,384	69.0	6,454	77.0	5,536	83.6
Extension eligibles	3,745	36.6	2,320	24.7	2,415	31.0	1,925	23.0	1,085	16.4

[a]This table includes both reading-only and reading and/or mathematics Gates-eligible students in 1982-83. In 1981-82, 1983-84, 1984-85, and 1985-86 students were held over if they were below the reading criterion.

Comparison of Reading Criterion Attainment

Attainment of reading criterion in 1985-86 can be compared with attainment in previous years. Table 1 includes data for the first five Gates school years. In the fourth grade, the rate of attainment in 1985-86 (79.0 percent) is comparable to the rates in the previous years. In the seventh grade, 1985-86 criterion attainment (83.6 percent) was greater than in any previous year. This difference occurs at the April, 1986 testing, at which time students could attain their grade criterion on either the D.R.P. or the MAT. Overall, 78.8 percent of the fourth-grade Gates students and 72.9 percent of the seventh-grade Gates students attained the reading criteria in the five years of the program.

READING ACHIEVEMENT GAINS OF GATES STUDENTS ON THE CAT AND D.R.P.

Overall Achievement

The achievement test scores of Gates students who had both an April, 1985 pretest score on the CAT and an April, 1986 posttest score on the D.R.P. were analyzed for gains. The results of these analyses appear in Table 2. The scores are expressed in Normal Curve Equivalent (N.C.E.) units since this allows comparisons of scores on the CAT with scores on the D.R.P. Pretest means were adjusted to account for regression to the mean.* Regression to the mean is a statistical artifact which results from using the same test for both pupil selection and as the pretest in program evaluation, especially in populations which have distributions that differ from the norming group.

* Only April to April scores of the total test population can be adjusted for the regression effect. Refer to Appendix B for these computations.

TABLE 2

Reading Achievement of Gates Students
on the Citywide Tests

Grade	N[c]	Pretest N.C.E.[a] Unadjusted Mean N.C.E.	(S.D.)	Pretest N.C.E.[a] Adjusted Mean N.C.E.	Posttest N.C.E.[b] Mean N.C.E.	(S.D.)	Adjusted Mean Difference
Four	4,998	28.8	(8.0)	34.0	44.3	(13.9)	10.3
Seven	5,750	31.9	(7.4)	36.0	42.8	(9.9)	6.8

[a]The pretest was the CAT, given as the citywide reading test in April, 1985.

[b]The posttest was the D.R.P., given as the citywide reading test in April, 1986.

[c]An additional 832 fourth- and 1,350 seventh-grade students were eligible for the Gates program on the basis of a below-criterion reading achievement score. These students were missing one or the other April score and could not be included in these gains analyses.

The data analysis results, by grade, indicate that Gates students made progress in reading during the 1985-86 school year. Fourth-grade students gained an average of 10 N.C.E.s and seventh-grade students gained an average of seven N.C.E.s.

Comparison of Gains Across Five School Years

During the first four years of the program, gains of Gates students were contrasted with those of a "comparison group." Comparison group students were 1980-81 students who would have been eligible for Gates if the program had existed that year. This comparison was repeated to include the current fifth-year results. The data are found in Table 3. The data in Table 3 are reported in N.C.E.s to provide direct comparisons between previous years and the current year of the program. While the 1985-86 Gates students have slightly higher pretest scores than students in previous years, these differences are minimal. An analysis of covariance, therefore, was not deemed necessary since any adjustment in the posttest scores would be minimial. Nevertheless, gains of Gates students in 1985-86 appear to be less than in prior years of the program.

Reading Achievement by Promotional Category

Table 4 presents the results of analyses on the full-year gains made by students who were eligible for the Gates program for different lengths of time: students promoted in August, 1985; students promoted in January, 1986; and full-year holdovers.

Students who met criterion in August, 1985. The promotional policy allowed students who scored below criterion on the April, 1985 CAT to take the test again at the end of summer school. Full-year gains of

TABLE 3

Comparison of Reading Achievement on the Citywide Tests of the 1980-81 Comparison Group and 1981-82, 1982-83, and 1983-84, 1984-85, and 1985-86 Gates Students

School year	N	Observed mean pretest N.C.E. score	Observed mean posttest N.C.E. score	Difference
Grade Four				
1980-81	6,914	27	42	15
1981-82	6,924	27	44	17
1982-83	6,003	27	44	17
1983-84	4,226	28	44	16
1984-85	5,741	27	44	17
1985-86	4,998	29	44	15
Grade Seven				
1980-81	10,214	30	42	12
1981-82	8,659	29	41	12
1982-83	8,439	30	44	14
1983-84	6,230	31	44	13
1984-85	7,471	31	45	14
1985-86	5,750	32	43	11

NOTE: Mean posttest scores are not adjusted for pretest level, and no covariance analysis for the five years has been performed. In addition, these are observed scores which have not been adjusted for regression and as a result overestimate actual gains.

TABLE 4

Reading Achievement of Gates Students by Promotional Category

Grade	N	Pretest[a] Mean N.C.E.	Pretest[a] (S.D.)	Posttest[b] Mean N.C.E.	Posttest[b] (S.D.)	Mean N.C.E. Difference[c]
Students who met criterion in August, 1985						
Four	1,492	30.3	(5.9)	46.5	(10.6)	16.2
Seven	1,925	33.2	(5.5)	45.7	(8.0)	12.5
Students who met criterion in January, 1986						
Four	236	29.8	(6.7)	49.7	(11.1)	19.9
Seven	717	32.7	(6.0)	43.9	(8.7)	11.2
Students who met criterion in April, 1986						
Four	2,356	29.0	(8.6)	49.7	(10.9)	20.7
Seven	2,416	32.2	(7.8)	44.8	(7.4)	12.6
Extension-eligible students						
Four	914	25.5	(8.7)	25.1	(8.4)	-0.4
Seven	692	26.6	(9.3)	26.9	(8.8)	0.3

[a] The pretest was the CAT, given as the citywide reading test in April, 1985.

[b] The posttest was the D.R.P., given as the citywide reading test in April, 1986.

[c] These observed mean N.C.E. differences, which for subgroups cannot be adjusted for the regression effect, overestimate actual gains.

students who took and passed the August test appear in Table 4. These students were eligible for promotion to a 1985-86 fifth- or eighth-grade class. Subsequently, fourth grade students in this group gained over 16 N.C.E.s on the April, 1986 D.R.P. This level of performance is comparable to the gains achieved in previous years. Seventh-grade gains were less than previous years (12.5 N.C.E.s).

Students who met criterion in January, 1986. In January, the criteria for promotion were higher. These criteria were increased for January so that students promoted at mid-year would be more likely to perform successfully in the higher grade and, thus, would be better able to attain the end-of-year promotional criterion for their new grade. These students were eligible for participation in a Gates class for the first half of the 1985-86 school year, and for placement in a regular fifth- or eighth-grade class for the remainder of the year. In the fourth grade, the average April, 1986 score was 20 N.C.E.s higher than the April, 1985 score. In the seventh grade the average score was 11 N.C.E.s higher than the April, 1985 score.

Full-Year Holdovers. Table 4 also presents gains in reading achievement made by full-year holdovers. This group includes those students who had not met the criterion in either August, 1985 or January, 1986. The full-year holdover group is divided into two subgroups: those who met the criterion in April, 1986 and those who did not. In both grades the average pretest score of students who met criterion in April was equivalent to that of students who met their criterion at an earlier point. Also, the average gain in reading achievement was equivalent to

or higher than that of students who met the criterion earlier. On the other hand, students who did not meet the criterion for their grade and became Extension-eligible students did not demonstrate gains. As has been noted in prior reports, the gains of this group are difficult to measure since the pretest and posttest scores are near chance level. Random guessing could produce scores in this range. Therefore, the gains of these students cannot be measured reliably. Nevertheless, the results indicate that these students continue to perform below the promotional standard.

Reading Achievement by Subgroups of the Gates Population

Resource Room Students. Table 5 reports gains in reading achievement by Gates students who were also in a special-education Resource Room. Their performance on the reading achievement tests was similar to that of the total Gates population (of which they are a part). In each grade the average pretest and posttest scores were slightly lower than that of the full group and their N.C.E. gains were slightly less than those gains made by the total population.

Limited English Proficient (LEP) Students*. LEP students who had been in an English language school system for four years or more were required to meet the promotional criteria on the CAT in April, 1985 and the D.R.P. in April, 1986. Table 6 shows the results of the analysis of the gains these students made over the course of the year. As in the previous years of the program, LEP students had lower pretest and

* The operational definition of limited English proficiency (LEP) is a score at or below the twentieth percentile on the English reading subtest of the LAB.

TABLE 5

Reading Achievement of Resource Room Students

Grade	N	Pretest[a] Mean N.C.E.	Pretest[a] (S.D.)	Posttest[b] D.R.P. Mean N.C.E.	Posttest[b] D.R.P. (S.D.)	Mean N.C.E. Difference
Four	284	27.3	(7.6)	41.6	(14.3)	14.3
Seven	225	30.6	(7.3)	41.1	(8.3)	10.5

[a] The pretest was the CAT, given as the citywide reading test in April, 1985.

[b] The posttest was the D.R.P., given as the citywide reading test in April, 1986.

TABLE 6

Reading Achievement of LEP-Eligible Gates Students

Grade	N	Pretest Mean N.C.E.	Pretest (S.D.)	Pretest Mean N.C.E.	Pretest (S.D.)	Mean N.C.E. Difference
Four	491	26.6	(8.1)	39.4	(14.2)	12.8
Seven	430	28.7	(8.7)	37.1	(10.5)	8.5

[a] The pretest was the CAT, given as the citywide reading test in April, 1985.

[b] The posttest was the D.R.P., given as the citywide reading test in April, 1986.

posttest scores than those of the total Gates population. Also, the gains of both the fourth-grade and the seventh-grade LEP students were not as great as for the total fourthand seventh-grade Gates population.

LEP Students on the Language Assessment Battery (LAB). LEP students who were in an English language school system for at least two but less than four years were required to meet the promotional criterion on the LAB. Since Spring, 1984, fourth-grade LAB-eligible students have been required to meet a criterion of a total test raw score of 47 on the April LAB. The criterion for seventh-grade LAB-eligible students is a reading subtest raw score of 24 or above.

Table 7 displays the results for the fourth and seventh grade of the analysis of gains on the LAB. In the fourth-grade, the average LAB-eligible student obtained a raw score above the LAB promotional criterion (57.0) by the end of the program year. In the seventh-grade, the average raw score (26.6) was slightly above the promotional criterion at the end of the program year.

READING ACHIEVEMENT GAINS OF GATES STUDENTS ON THE D.R.P.

In addition to the CAT, a large percentage (85.5 percent) of the Gates students took the D.R.P. during the Spring, 1985 testing period. At that time, the D.R.P. was administered as a secondary test, the results of which were used to determine program exceptions. The achievement of the 8,393 Gates students who had both pretest and posttest D.R.P. scores is found in Table 8. These results indicate that Gates students in both grades four and seven showed educationally significant gains. (The D.R.P. manual states that a gain of four D.R.P. units or better is considered educationally significant.)

TABLE 7

Reading Achievement on the LAB of LEP-Eligible Gates Students

		Pretest		Posttest		Difference
Grade	N	Mean Raw Score	(S.D.)	Mean Raw Score	(S.D.)	Raw Score
Four	68	39.9	(8.3)	57.0	(12.6)	17.1
Seven	42	17.3	(3.4)	26.6	(9.0)	9.3

TABLE 8

Reading Achievement On The D.R.P. of Gates Students

		Pretest		Posttest		Difference
Grade	N	Mid Instructional Score[a]	(S.D.)	Mid Instructional Score[a]	(S.D.)	
Four	3,953	29.2	(7.4)	37.8	(9.8)	8.6
Seven	4,440	47.7	(7.1)	53.5	(6.7)	5.8

[a] Scores are expressed in D.R.P. units.

Reading Achievement by Promotional Category

Table 9 presents the full-year gains on the D.R.P. made by students eligible for the Gates program for different lengths of time. Students promoted in January, 1986 had the highest full-year gains; the gains of students who met their promotional standard in April were higher than those of students promoted in August. Further, fourth-grade Gates students had higher full-year gains than the seventh-grade Gates students. The results in Table 9 closely resemble those for the CAT-D.R.P. analyses reported in Table 4.

The full-year holdover group was divided into those attaining their grade criterion and those failing to attain their grade criterion. These results, also found in Table 9, indicate that students attaining their grade criterion in April, 1986 made educationally significant gains based on their D.R.P. scores. Students failing to attain their criterion made minimal gains on the D.R.P. Gains in the magnitude observed for the Extension-eligible students are not statistically significant and, therefore, could be attributed to chance.

THE FIFTH-GRADE AND EIGHTH-GRADE EXTENSION PROGRAMS

Fourth-grade and seventh-grade students who had been eligible for Gates Program placement in 1984-85 and who failed to attain the reading criterion in April, 1985 were eligible for placement in the 1985-86 fifth- and eighth-grade Extension programs, respectively. The criterion attainment and achievement gains made in reading by these students are discussed below.

Table 9

Reading Achievement On The D.R.P. of Gates Students
By Promotional Category

		Pretest		Posttest		Difference
Grade	N	Mid Instructional Score	(S.D.)	Mid Instructional Score	(S.D.)	
Students promoted in August, 1985						
Four	1,213	32.7	(6.5)	41.5	(8.9)	8.8
Seven	1,561	50.3	(6.1)	56.1	(5.0)	5.8
Students promoted in January, 1986						
Four	201	30.4	(6.7)	42.8	(9.0)	12.4
Seven	555	47.8	(5.7)	54.8	(5.3)	7.0
April, 1986 promotees						
Four	1,866	29.2	(6.7)	39.8	(7.4)	10.6
Seven	1,830	47.5	(6.7)	53.9	(5.3)	6.4
Extension-eligible students						
Four	673	22.4	(5.9)	24.3	(5.0)	1.9
Seven	494	40.0	(7.0)	42.1	(5.4)	2.1

Reading Criterion Attainment

Of the 620 fifth-grade Extension students, 561 had a pretest and posttest score on the CAT and D.R.P., respectively. (See Table 10.) Of those students with complete test records, 349 (62.2 percent) met the reading promotional criterion in April, 1986 but 212 (37.8 percent) were unable to attain their criterion score on the D.R.P. and, as a result, did not meet the end-of-year promotional standard for a third consecutive year. Of the 864 eighth-grade Extension students, 694 had both pretest and posttest scores. A total of 460 (66.3 percent) met the promotional criterion by April, 1986 while 234 (33.7 percent) did not.

Achievement on the CAT and D.R.P. The test results for 535 of the fifth-grade Extension students and 630 of the eighth-grade Extension students who had both pretest and posttest scores were analysed for gains. The results for these data appear in Table 11. As in prior years, the average N.C.E. gains for the fifth-grade Extension students were substantially lower than gains for the fourth-grade Gates population. Similar results were observed for the eighth-grade Extension students in comparison to the seventh-grade Gates population.

Achievement on the D.R.P. Results of the 398 fifth-grade and 483 eighth-grade Extension students who had both April, 1985 and April, 1986 D.R.P. scores are found in Table 12. The full-year gains of the Extension students are equivalent to those of the Gates population and are educationally significant.

TABLE 10

Reading Criterion Attainment of Fifth-Grade and Eighth-Grade Extension Students

	Fifth-Grade Extension		Eighth-Grade Extension	
	N	%	N	%
Students with pretest and posttest scores*	561		694	
Students meeting criterion - August, 1985	28	5.0	28	4.0
Students meeting criterion - January, 1986	2	0.3	5	0.8
Students meeting criterion - April, 1986	319	56.9	427	61.5
Total meeting criterion	349	62.2	460	66.3
Below reading criterion three times	212	37.8	234	33.7

* Fifty-nine fifth-grade and 170 eighth-grade students lacked posttest scores. These students were not included in the analysis.

TABLE 11

Reading Achievement of Fifth-Grade and Eighth-Grade Extension Students

		Pretest[a]		Posttest[b]		Difference
Grade	N	Normal Curve Equivalent Score	(S.D.)	Normal Curve Equivalent Score	(S.D.)	
Five	536	28.1	(7.7)	37.8	(14.4)	9.7
Eight	646	30.4	(7.5)	35.9	(11.1)	5.5

[a] The pretest was the CAT, given as the citywide reading test in April, 1985.

[b] The posttest was the D.R.P., given as the citywide reading test in April, 1986.

TABLE 12

Reading Achievement On The D.R.P. of Fifth-Grade and Eight-Grade Extension Students

		Pretest		Posttest		Difference
Grade	N	Mid Instructional Score[a]	(S.D.)	Mid Instructional Score[a]	(S.D.)	
Five	398	28.3	(7.3)	35.4	(9.1)	7.1
Eight	483	44.6	(7.1)	50.2	(6.6)	5.6

[a] In D.R.P. units.

III. CONCLUSIONS

ACHIEVEMENT OF GATES STUDENTS

Over the five years of the program, 78.8 percent of the fourth-grade and 72.9 percent of the seventh-grade Gates students attained their reading criterion on the CAT, D.R.P. or MAT. In addition, the average full-year gain was 16.4 N.C.E.s in the fourth grade and 14.0 N.C.E.s in the seventh grade.

The criterion attainment and reading achievement of the Gates students in 1985-86 is different from that in the previous four years of the program. In 1985-86, for the first time, a larger percentage of the seventh graders than fourth graders attained their criterion. This degree of criterion attainment in seventh grade also is greater than for seventh-grade Gates students in any prior year. The 1985-86 average N.C.E. score gains, however, are lower than those observed in prior years and lower than those of the comparison group of 1980-81 students who would have been eligible had there been a program in that year.

Further, patterns of achievement, which have been consistent during previous years, were different in 1985-86. In the past, students promoted in August and January had the highest pretest and posttest scores and showed the largest gains. During the current program year, pretest and posttest scores were approximately the same within each grade for students who met criterion in August, January, and April. These results may be a function of the change in the achievement test used. Students promoted in August and January had a posttest score on the CAT, while students promoted in April had a posttest score on the D.R.P.

The reading achievement gains of the Gates students who became Extension-eligible students continues to be a problem and shows indications of becoming even more problematic. In previous years, the gains of Extension-eligible students were low; in 1985-86, the gains were non-existent.

The patterns of achievement by subgroups of the Gates population, were similar to those observed in previous years. In 1985-86, gains in reading achievement were less for the Resource Room students as well as for the LEP students than for the total Gates population.

ACHIEVEMENT OF EXTENSION STUDENTS

Achievement of the fifth- and eighth-grade Extension students continues to be problematic. The gains on the D.R.P. are educationally significant (according to the D.R.P. Manual), and approximately 13 percent more eighth-grade Extension students attained their criterion in 1985-86 than in 1984-85. Among the fifth-grade Extensin students, this increase was approximately seven percent. Nevertheless, gains for the years are seven N.C.E.s lower than those observed in previous years for eighth grade and 3.3 N.C.E.s lower for fifth grade.

RECOMMENDATIONS

O.E.A. recommends that program administrators note than even though more students are attaining their grade criterion, the gains made by these students are smaller than in previous years. It appears that the increased rate of criterion attainment was made by the full-year Gates students who met criterion in April, 1986. This increase in the percent of students

attaining criterion may be due to the new opportunity students had in April, 1986 to pass out of the Promotional Policy Program on either of two tests (the D.R.P. or the MAT) and, therefore, may represent an artifact of testing and not improvements in program outcomes. This observation is further substantiated by the lower gains observed for the 1985-86 students.

Despite apparent gains in criterion attainment, O.E.A. recommends that program administrators at the central and district levels examine their programs for adequacy of teacher preparation and curriculum materials. O.E.A. suggests that some students may, in fact, not be receiving appropriate services.

Appendix A

ACCOUNTING OF READING-ELIGIBLE GATES STUDENTS
INCLUDED IN FULL-YEAR GAINS ANALYSES,
1981-82 THROUGH 1985-86

TABLE A-1
Accounting of Reading-Eligible Gates Students Included in Full-Year Analyses, 1981-82, through 1985-86

Student Category	1981-82 Grade 4 N	1981-82 Grade 4 %	1981-82 Grade 7 N	1981-82 Grade 7 %	1982-83 Grade 4 N	1982-83 Grade 4 %	1982-83 Grade 7 N	1982-83 Grade 7 %	1983-84 Grade 4 N	1983-84 Grade 4 %	1983-84 Grade 7 N	1983-84 Grade 7 %	1984-85 Grade 4 N	1984-85 Grade 4 %	1984-85 Grade 7 N	1984-85 Grade 7 %	1985-86 Grade 4 N	1985-86 Grade 4 %	1985-86 Grade 7 N	1985-86 Grade 7 %
Students originally held over[a]	10,890		13,847		8,386		12,063		6,235		9,955		7,436		9,989		6,983		8,382	
Excused from the program																				
Appeal (exception)[b]	269	2.5%	229	1.7%	768	5.6%	896	7.2%	553	8.7%	630	6.3%	766	10.3%	954	9.6%	787	11.3%	844	10.1%
Special education[c]	340		172		---		---		--		---		-----							
Students actually held over	10,281		13,446		7,618		11,167		5,682		9,325		6,670		9,035		6,196		7,538	
Eligibles in gains analyses[d]	7,014	68.2	8,680	64.6	6,060	79.5	8,515	76.3	4,586	80.7	6,641	71.2	6,339	95.0	8,379	92.7	4,998	80.7	5,750	76.3
Not in gains analyses	3,267	31.8	4,766	35.4	1,558	20.5	2,652	23.7	1,096	19.3	2,684	28.8	331	5.0	656	7.3	1,198	19.3	1,788	23.7

[a]The data for 1981-82 are from Table 1 of the O.E.A. Final Report of that year and include those below criterion in April, August, or September, 1981.

[b]In 1981-82 the exception process (based on appeals) was referred to as an exemption process; these data are from Table 1 of the final report.

[c]The data for 1981-82 are from Table 20 of the final report. In 1981-82 exemptions were not granted on the basis of special education in as systematic a manner as they were in 1982-83 and 1983-84. In addition, the first-year database did not identify exempt students in as systematic a manner as in the later years. As a result, 512 students identified in April, 1982 as special education students were deleted from the analysis because they had to be considered ineligible for the program. In 1982-83 and 1983-84, automatic exemptions were maintained on the database.

[d]In 1981-82, 10,281 fourth-graders were eligible for the program: 10,186 were eligible on the basis of the CAT and the remaining 95 were eligible on the basis of the CREST (refer to Tables 1 and 23 of the O.E.A. final report for the year). In seventh grade, 13,446 were eligible, 13,423 on the basis of the CAT and 233 on the basis of the CREST. In 1982-83, 7,618 fourth graders were eligible for a Gates class, 7,510 of whom were CAT-eligible and 108 were LAB-eligible. In seventh grade, of the 11,167 total, 11,042 were CAT-eligible and the remaining 125 were LAB-eligible. In 1983-84, 5,682 fourth graders were eligible for a Gates class, 5,521 of whom were CAT-eligible and 161 were LAB-eligible. In seventh grade, of the 9,325 total, 9081 were CAT-eligible and the remaining 244 were LAB-eligible.

Appendix B

STATISTICAL ADJUSTMENT OF PRETEST SCORES TO ACCOUNT FOR REGRESSION TO THE MEAN

STATISTICAL ADJUSTMENT OF PRETEST SCORES TO ACCOUNT FOR REGRESSION TO THE MEAN

The equation used to adjust pretest scores to account for the regression effect is taken from A.O.H. Roberts, "Regression Towards the Mean and the Regression Effect Bias," in New Directions for Testing and Measurements, No. 8, 1980, (San Francisco, Jossey Bass), pp. 59-82.

The equation is:

$$\bar{X}cs = \bar{X}s + \frac{o^2}{s^2} (1 - O_{xx}) (\bar{X}g - \bar{X}s)$$

This formula was used with the appropriate CAT scale scores to correct April, 1984pretest means, where:

	CAT, Form C	
	Grade 4	Grade 7
$\bar{X}cs$ = corrected pretest (scale score) mean of Gates-eligible students.....	*	*
$\bar{X}s$ = pretest (scale score) mean of Gates-eligible students.....	378.0	459.0
$\bar{X}g$ = city-wide (scale score) mean on pretest.....	450.8	533.4
o = standard deviation of pretest scale scores nationally	60.8	75.9
s = standard deviation of pretest scale scores city-wide.....	51.0	59.2
O = coefficient of reliability.....	.86	.86

The posttest was the D.R.P.

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*These values are computed on the following page.

**These values are only for Gates-eligible students who were included in the full-year gains analyses.

Adjustment of April, 1985 CAT for Students' Gains from April, 1985 to April, 1986

Grade Four ($N = 4{,}998$, $\bar{X}s = 378.0$)

$$\bar{X}cs = 378.0 + \frac{(60.8)^2}{(51.0)^2} (1 - .86) (450.8 - 378.0)$$

$\bar{X}cs = 378.0 + 14.49$

$\bar{X}cs = 392.5$

Converts to 34 N.C.E.s

Grade Seven ($N = 5{,}750$, $\bar{X}s = 459.0$)

$$\bar{X}cs = 459.0 + \frac{(75.9)^2}{(59.2)^2} (1 - .86) (533.4 - 459.0)$$

$\bar{X}cs = 459.0 + 17.12$

$\bar{X}cs = 476.1$

Converts to 36 N.C.E.s